This PhD thesis begins with a general introduction in Chapter 1. Migration is a historical phenomenon resulting mainly in improved life circumstances. However, moving to a new country can be stressful, in some cases leading to mental illness such as depression. Depressive disorders are highly prevalent worldwide and both ethnic minorities and immigrants are at a higher risk of developing depression compared with native or host populations. Ethnic minority groups are also less likely to have recourse to psychotherapy for depression. In the Netherlands, Turkish migrants are at a higher risk of developing depression than other ethnic minority groups. Their perceived need for care for mental health problems is also higher than that among other ethnic minorities. Cultural background and orientation play an important role in depression. Nowadays, web-based psychological treatments have been shown to be as effective as face-to-face psychotherapy, such as problem-solving therapy. However, there is a lack of clinical research on ethnic minorities and little is known about the effectiveness of psychotherapy (either delivered online or face-to-face) on depression in this target group. With regard to research and treatment, ethnic minorities are a hard to reach population.

The key goal of this thesis is to provide greater insight into the effectiveness of psychological treatments for depression in ethnic minorities. The research was carried out as follows. First, the effectiveness of psychotherapy in the treatment of depression in ethnic minorities was investigated in a meta-analysis. Next, an existing Internet-based problem-solving therapy method was adapted and developed for Turkish migrants in the Netherlands and its effectiveness was tested in a randomized controlled trial (RCT). The recruitment process for this trial was evaluated with an overview of effective recruitment strategies for Turkish migrants. Finally, the relationship between depression and acculturation strategies (i.e. integration, assimilation, separation and marginalization) among Turkish migrants in the Netherlands was analysed.

In Chapter 2, the relative effects of psychotherapy for ethnic minorities are assessed by examining the association between the proportion of ethnic minority participants and the effect size of RCTs in this field. A total of 56 RCTs were identified using an existing database containing data on trials of psychological treatments for depression in adults. The following inclusion criteria were applied: participants included adults (18 years or older) with a depressive disorder diagnosis or symptomatology compared with a control condition (care-as-usual, waiting-list, placebo, or another control group) in an RCT in which the proportion of ethnicity in the study sample was reported. This resulted in 77 comparisons between psychotherapy and control groups. Results showed a moderate effect size (g=.50) for psychotherapy compared with the control group. There was no moderating effect for ethnicity in bivariate or multivar-
iate analyses. The findings suggest that psychotherapy is equally effective irrespective of the ethnic background of care-seekers. Given the burden of depression and the underrepresentation of ethnic minorities in clinical and research settings, more attention is needed to fill in the gap between the availability of effective mental health care and the delivery of such services for this target group.

Chapter 3 and 4 report on an RCT which assesses the effectiveness of a guided self-help web-based intervention for Turkish migrants with depressive symptoms. This intervention is based on Problem Solving Treatment (PST) and is culturally adapted from an evidence-based intervention (Alles Onder Controle). The research protocol for this RCT is described in Chapter 3. Chapter 4 reports the results of this trial, with effectiveness in treating depressive symptoms as a primary outcome measure, and somatization, anxiety symptoms, quality of life, and satisfaction with the treatment as secondary outcome measures. All assessments took place online at baseline, posttest (six weeks after baseline) and four months after baseline. The RCT consisted of two arms: an experimental condition (with direct access to the treatment) and a control condition (a waiting-list of four months). Participants (n=96) were included if they were 18 years or older, had depressive symptoms (a score of 16 or higher on the CES-D), if the participant or at least one parent was born in Turkey, had access to a computer with Internet, an email address and had returned a signed informed consent form to the researcher. Participants with suicidal ideation were excluded from the trial. After randomisation, 49 participants were placed in the experimental group and 47 were placed in the control group. Results showed high attrition rates at posttest (42%, 40/96) and the follow-up assessment at 4 months (62%, 59/96). There was no significant difference between the experimental group and the control group at posttest. Based on completers-only analyses, the experimental group showed a significant improvement in depression compared with the control group, both at posttest (p=.01) and follow-up (p=.01). Recovery was also significantly higher in the experimental group (33%, 16/49) than in the control group (9%, 4/47) at posttest (p=.02). This trial did not show a significant effect for the culturally adapted web-based intervention in terms of depressive symptom reduction. However, the high effect sizes found at posttest (d=1.68) and follow-up (d=1.13) might show effectiveness in a larger and more robust trial.

Chapter 5 continues with the RCT the recruitment procedure. It describes the recruitment process using six different strategies in Dutch and Turkish, including 1) a press release; 2) digital mailing; 3) the distribution of research information leaflets; 4) advertisements; 5) the Internet (in general terms); and 6) Facebook (FB). Each strategy is described in terms of its
Recruiting and treating depression in ethnic minorities: the effects of online and offline psychotherapy

Burcu İnce Ünlü

content, approach and effectiveness in recruiting participants for the trial. FB as a recruitment strategy is evaluated separately in a step-by-step description together with an evaluation of data on FB Friends and their messages from FB. The recruitment procedure led to 287 applications for the trial, of which the majority consisted of applicants from FB (75.6%, n=224), of whom 74 (33%, n=224) were included in the trial. Traditional recruitment strategies (the remaining five strategies) were less successful: only 16.4% (n=47) of the total of 287 applicants applied through these channels, of whom only three (3.1%) were included in the trial. The use of FB was demonstrated to be more successful in recruiting ethnic minorities than traditional methods, such as research information leaflets and advertisements in newspapers. Future research is needed to examine the factors accounting for the potential success of FB as a recruitment strategy in ethnic minorities and hard-to-reach populations.

Chapter 6 explores the relationship between acculturation strategies (integration, assimilation, separation and marginalization) and the prevalence of depressive and anxiety disorders, as well as utilization of GP care among Turkish migrants. This study re-examines data from an epidemiological study conducted among Dutch, Turkish and Moroccan inhabitants of Amsterdam. Four scales of acculturation strategies were created in combination with the bi-dimensional approach to acculturation by factor analysis based on an existing acculturation assessment (LAS). The aim is to assess the relationship between socio-demographic variables, depressive, anxiety and co-morbidity of both disorders and the use of health care services with the four acculturation strategies.

The sample included a total of 210 Turkish migrants. Several significant associations were found between acculturation strategies and age (p=.00), education (p=.00), daily occupation (p=.00) and being in a long-term relationship (p=.03), as well as with depressive disorders (p=.049). The integration strategy was associated with a lower risk of depression and the separation strategy with a higher risk of depression. When the acculturation axis is used separately, participation in Dutch culture was associated with a decreased risk of depression, anxiety and co-morbidity of both disorders. The results of this study suggest that acculturation strategies are worthy of attention when diagnosing depression.

Finally, Chapter 7 summarises the main findings, compares the results with previous work and discusses the limitations of the studies undertaken for this PhD thesis. Implications for practice and research and recommendations for future research are also set out. Since there is no reason to assume that psychotherapy works differently in ethnic minorities, evidence-based psychotherapy might be an appropriate way to treat depression in ethnic mi-
norities in clinical practice. In light of the high percentage of Turkish migrants who opt for psychotherapy in Turkish, more attention should be given to the native language of ethnic minorities attending psychotherapy. It seems that offering psychotherapy through the Internet is potentially an effective way to lower the threshold for ethnic minorities to participate in such trials and interventions. In particular, FB is not only a promising strategy for the recruitment of ethnic minority populations, it may also help to lower the threshold for seeking mental health care. Web-based PST offered in Turkish might offer added value in practice for both clinicians and Turkish clients. The assessment of acculturation strategies may be an important component in the detection of depression in ethnic minorities. Future studies should focus on how to improve access to and delivery of psychotherapy for ethnic minorities. Furthermore, recruitment methods for ethnic minorities and the development culturally sensitive approaches to psychotherapy for ethnic minorities are important research topics. The studies in this PhD thesis contribute to the as yet limited number of studies targeting ethnic minority populations for randomized controlled trials.